

SM3H 1.7 odd answer key

1. $\pm 1, \pm \frac{1}{2}, \pm \frac{1}{3}, \pm \frac{1}{6}$

3. $\pm 1, \pm 2, \pm 7, \pm 14, \pm \frac{1}{3}, \pm \frac{2}{3}, \pm \frac{7}{3}, \pm \frac{14}{3} ; x = \frac{7}{3}$

5. It is a lower bound because signs alternate and $k \leq 0$.

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9. 2 or 0 positive real roots, 1 negative real root

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13. 1 positive real root, 0 negative real roots

15. *rational*: $x = \frac{3}{2}$; *irrational*: $x = \pm\sqrt{2}$

17. *rational*: $x = -3$; *irrational*: $x = 1 \pm \sqrt{3}$

19. $3x^2 + 2x + 3 + \frac{-2}{3x+2}$